

## **REMARKS**

By this Amendment, Applicants have amended claims 60 and 62. No new matter has been added. Claims 32-62 are pending on the merits.

As an initial matter, Applicants appreciate the Examiner's designation of the Office Action dated October 9, 2007 as non-final. Further, Applicants appreciate the Examiner's reconsideration and withdrawal of the rejection of claim 61 under 35 U.S.C. § 102(b).

### **I. Rejection under Section 102(b) Based on Gerspacher**

In the Office Action, claims 60 and 62 were rejected under 35 U.S.C. § 102(b) based on U.S. Patent No. 4,143,209 to Gerspacher et al. ("Gerspacher"). By this Amendment, Applicants have amended claims 60 and 62, and Applicants continue to respectfully traverse the § 102(b) rejection based on Gerspacher because 1) the rejection statement fails to properly consider the all of the subject matter recited in each of those claims, and 2) when all of the subject matter is properly considered, the Gerspacher reference fails to disclose or suggest all of the subject matter recited in each of claims 60 and 62.

The rejection statement asserts that claims 60 and 62 are product-by-process claims, and further, that since they are product-by-process claims, the subject matter recited in the claims that relates to the process does not need to be considered when examined with respect to the prior art. Office Action at 2 (citing M.P.E.P. § 2113 (8<sup>th</sup> ed. rev. 6 Sept. 2007) ("M.P.E.P.") in purported support). In the section of the Office Action entitled "Response to Applicants' Comments," it is asserted that claims 60 and 62 are

“classic product-by-process claims wherein it is the end product that is determined as to the patentability over the prior art.” Id. at 4.

Applicants respectfully submit that claims 60 and 62 are not product-by-process claims. Rather, each of claims 60 and 62 is a proper dependent claim that ultimately depends from independent claim 32, which recites a “method for producing a metal wire for reinforcing an elastomeric material . . . .” According to the M.P.E.P., an independent method claim directed to a method of making a product, and a dependent claim directed to a product made by the method recited in the independent claim are properly related as an independent claim and a dependent claim, if it is not possible to infringe the dependent claim without also infringing the independent claim. § 608.01(n)(III). Since Applicants’ dependent claims 60 and 62 respectively recite, among other subject matter “[a] metal wire . . . produced by the method of claim 32,” and “[a] metal cord . . . comprising: a plurality of the metal wires of claim 60,” it is not possible to infringe either of dependent claims 60 and 62 without also infringing independent claim 32. Thus, each of dependent claims 60 and 62 is a proper dependent claim, which depends from independent claim 32. As a result, each of claims 60 and 62, when properly interpreted, must necessarily include all of the subject matter recited in independent claim 32. Therefore, each of dependent claims 60 and 62 should be interpreted as including the subject matter recited in corresponding independent claim 32, and under this proper interpretation, the subject matter relating to the process cannot be completely disregarded when examining these claims with respect to the prior art by virtue of mischaracterizing these claims as product-by-process claims.

When each of claims 60 and 62 is properly interpreted to include the subject matter recited in independent claim 32, the Gerspacher reference fails disclose or suggest all of the subject matter recited in each of claims 60 and 62. The Office Action implicitly concedes that Gerspacher does not disclose or suggest all of the subject matter recited in each of those claims by virtue of the Office Action's failure to include a rejection under 35 U.S.C. § 102(b) or § 103(a) of independent claim 32 based solely on Gerspacher. For at least these reasons, Applicants respectfully submit that each of dependent claims 60 and 62 is patentably distinguishable from Gerspacher. Therefore, Applicants continues to respectfully request reconsideration and withdrawal of the rejection of claims 60 and 62 under § 102(b) based on Gerspacher.

## **II. Rejection under Section 103(a) based on Gerspacher and Sawada**

Claims 32-59 and 61 were rejected under § 103(a) as being unpatentable over Gerspacher in view of U.S. Patent No. 4,859,811 to Sawada et al. ("Sawada"). Claim 32 is the only independent claim included in this rejection. Applicants respectfully traverse the § 103(a) rejection of independent claim 32 because the Office Action has failed to establish a *prima facie* case of obviousness.

Under 35 U.S.C. § 103(a), several basic factual inquiries must be made in order to evaluate whether a patent claim is obvious. According to the M.P.E.P., obviousness is a question of law based on these factual inquiries. § 2141(II) (citing KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 82 U.S.P.Q.2d (BNA) 1385 (2007), and relying on the framework established by Graham v. John Deere Co., 383 U.S. 1, 17, 148 U.S.P.Q. (BNA) 459, 467 (1966)). In particular, the Graham factual inquiries create a four-part

framework for evaluating whether a patent claim is obvious. Graham, 383 U.S. at 17.

Those factual inquiries are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the prior art and the claims at issue;
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

Id. The M.P.E.P. advises that the question of obviousness must be resolved on the basis of these factual determinations. M.P.E.P. § 2141(II).

The M.P.E.P. also provides guidelines for making these factual determinations. For example, the M.P.E.P. cautions that in order to avoid impermissible hindsight reasoning, these factual determinations must be made with respect to “the time the invention was made.” § 2141.01(III). Moreover, the M.P.E.P. cautions that when “determining the differences between the prior art and the claims, the question [of obviousness] is not whether the differences themselves would have been obvious, but [rather, it is] whether the claimed invention as a whole would have been obvious.” § 2141.02(I). Indeed, when considering the prior art, [a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.” § 2143.03(VI) (second emphasis added).

Once the Graham factual inquiries have been resolved, it must be determined whether a claim is *prima facie* obvious. § 2141(III). Following the guidance of the above-outlined framework, the M.P.E.P. cautions that in order to establish a *prima facie* case of obviousness, “the examiner must step backward in time and into the shoes worn by the hypothetical ‘person of ordinary skill in the art’ when the invention was

unknown and just before it was made.” § 2142. Further, “the examiner must then make a determination whether the claimed invention ‘as a whole’ would have been obvious at that time to that person,” and further, that “[k]nowledge of applicant’s disclosure must be put aside in reaching this determination” because “impermissible hindsight must be avoided and a legal conclusion must be reached on the basis of the facts gleaned from the prior art”; not on the basis of applicant’s disclosure. Id.

Based on this guidance, the M.P.E.P. advises “[i]f a proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.” § 2143.01(VI). In other words, if the prior art teaches away from a proposed modification, then the prior art does not render a claim *prima facie* obvious.

Applicants respectfully traverse the § 103(a) rejection of independent claim 32 because the proposed combination of the Gerspacher and Sawada references fails to support a *prima facie* case of obviousness that satisfies either the Graham factual inquiries or the standard for *prima facie* obviousness set forth in the M.P.E.P. In particular, Applicants respectfully submit that Gerspacher teaches away from the rejection statement’s proposed, hypothetical modification to Gerspacher based on Sawada, and further, that an ordinary artisan in Gerspacher’s art relating to wire reinforcement of tires would not look to Sawada’s art relating to high quality electrical conductors for use in magnetic coils, acoustic- and image-forming appliances, such as stereo equipment, and for connecting semiconductor elements in an integrated circuit.

In the Office Action, the rejection statement concedes that “Gerspacher uses an electroplating process for obtaining adhesion of a coating to the core” rather than “the coating material [being] deposited on the on the metal core . . . using a plasma deposition technique,” as recited in independent claim 32. Office Action at 3. The rejection statement asserts, however, that “it would have been obvious to . . . have modified Gerspacher’s coating process by using a plasma or sputtering deposition process,” purportedly because Sawada shows a plasma deposition process to “facilitate greater adhesion advantages.” Id. In the “Response to Applicants’ Comments” section, it is asserted that “the skilled artisan having the benefit of Sawada’s teaching where vapor phase coating is advantageous over ‘other coating method[s]’ would have been motivated to have modified Gerspacher’s ‘other coating method’ of electrodeposition by using vapor phase coating method.” Id. at 5.

Applicants respectfully disagree with the Office Action’s assertions. Rather than disclosing “a plasma or sputtering deposition process,” Gerspacher discloses a process for making rubber-adherable wire for reinforcing rubber articles, such as tires, using an electroplating process. Indeed, Gerspacher discloses that “[t]he present invention is directed specifically toward control of surface oxide layer during the plating and drawing process.” (Col. 1, lines 29-31 (emphasis added).) In other words, Gerspacher’s invention is to reduce the creation of an oxide layer during an electroplating process. Thus, Gerspacher’s teachings relate to improving a process for electroplating brass onto steel wire, and modifying those teachings by replacing the electroplating process with Sawada’s deposition coating technique would result in changing the principle disclosed in Gerspacher. Thus, Gerspacher teaches away from substituting “a plasma

or sputtering deposition process” for the “preferred” electroplating process that is Gerspacher’s disclosed “invention.” For at least this reason, it would not have been obvious to modify the Gerspacher reference’s process for making zinc-coated steel wire for reinforcing tires based Sawada’s disclosure.

In addition to teaching away from the rejection statement’s proposed, hypothetical modification to Gerspacher’s disclosed process, the rejection statement’s proposed modification is improper under § 103(a) because a person having ordinary skill in Gerspacher’s art relating to processes for making wire for reinforcing tires would not have looked to Sawada’s disclosure relating to processes for making high quality electrical conductor for use in winding magnet coils, acoustic- and image-forming appliances, such as stereos, and for connecting semiconductor elements in integrated circuits. According to the M.P.E.P., if a reference is not one which, because of the matter with which it deals, logically would have commanded itself to an inventor’s attention in considering his or her invention as a whole, the reference is non-analogous art. § 2141.01(a). Moreover, if a reference is non-analogous art, it cannot be relied on a claim rejection under 35 U.S.C. § 103(a). Id.

Applicants respectfully submit that there is no reason an ordinary artisan skilled in Gerspacher’s art relating to processes for making wire for reinforcing tires would reasonably be expected to look to the art of making high quality electric conductors for audio devices and integrated circuits. Indeed, Gerspacher is concerned with the problem of improving the adhesion between the wire and the elastomeric material of tires, and to that end, with improving electroplating processes for coating a steel wire with brass. In contrast, Sawada is concerned primarily with the problem of improving

the quality and reliability of an electrical conductor, along with reducing the diameter of the electrical conductor, including coating a core wire with a coating of the same kind of material (e.g., coating a copper core wire with a copper coating) using a vapor deposition method. Thus, it is not reasonable to expect that an artisan in Gerspacher's field of reinforcing wires for tires would look to Sawada's electrical conductor field to solve a problem purportedly known in Gerspacher's field. Thus, Sawada is non-analogous art. For at least this additional reason, the Gerspacher and Sawada references, when viewed as a whole, do not render Applicants' independent claim 32 *prima facie* obvious.

For at least the above-outlined reasons, the Office Action has failed to establish that Applicants' independent claim 32 is *prima facie* obvious. Therefore, Applicants respectfully request reconsideration and withdrawal of the § 103(a) rejection of independent claim 32 based on Gerspacher and Sawada.

### **III. Rejection of Dependent Claims**

Dependent claims 33-59 and 61 were rejected under 35 U.S.C. § 103(a) based on Gerspacher in combination with Sawada, and dependent claims 60 and 62 were rejected under 35 U.S.C. § 102(b) based on Gerspacher alone, as outlined previously herein. All of these claims depend from independent claim 32, so they should be patentably distinguishable from Gerspacher and Sawada, regardless of whether those references are viewed individually or in combination, for at least the same reasons as independent claim 32.



#### IV. Conclusion

As outlined above, independent claim 32 should be allowable. Dependent claims 33-62 depend from allowable independent claim 32. Therefore, each of those dependent claims should be allowable for the same reasons independent claim 32 is allowable, as well as by virtue of their recitations of additional novel and non-obvious subject matter.

Applicants respectfully request reconsideration of this application, withdrawal of the outstanding claim rejections, and allowance of claims 32-62.

If the Examiner believes that a telephone conversation might advance prosecution, the Examiner is cordially invited to call Applicants' undersigned attorney at (404) 653-6559.

Applicants respectfully submit that the Office Action contains a number of assertions concerning the related art and the claims. Regardless of whether those assertions are addressed specifically herein, Applicants respectfully decline to automatically subscribe to them.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account 6-0916.

Respectfully submitted,

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